

CLAIMS

What is claimed is:

1. A method of automatic speech recognition (ASR), comprising:
 - providing a plurality of categories for different speech utterances;
 - assigning a different ASR engine to each category;
 - receiving a first speech utterance from a first user;
 - classifying the first speech utterance into one of the categories; and
 - selecting the ASR engine assigned to the category to which the first speech utterance is classified to automatically recognize the first speech utterance.
2. The method of claim 1 wherein providing a plurality of categories for different speech utterances further comprises providing a male category and a female category.
3. The method of claim 1 wherein assigning a different ASR engine to each category further comprises assessing accuracy of each ASR engine for each category.
4. The method of claim 3 wherein assessing accuracy of each ASR engine for each category further comprises determining a least Word Error Rate of each ASR engine for each category.
5. The method of claim 1 wherein assigning a different ASR engine to each category further comprises assessing time required for each ASR engine to recognize speech utterances.
6. The method of claim 1 further comprising:
 - receiving a second speech utterance from a second user;
 - classifying the second speech utterance into one of the categories; and
 - selecting the ASR engine assigned to the category to which the second speech utterance is classified to automatically recognize the speech utterance, wherein the ASR

engine assigned to the category to which the second speech utterance is classified is different from the ASR engine assigned to the category to which the first speech utterance is classified.

7. The method of claim 6 wherein the first speech utterance is classified into a male category, and the second speech utterance is classified into a female category.

8. An automatic speech recognition (ASR) system comprising:

means for processing a digital input signal from an utterance of a user;

means for extracting information from the input signal; and

means for selecting a best performing ASR engine from a group of different ASR engines to recognize the utterance of the user, wherein the means for selecting a best performing ASR engine utilizes the extracted information to select the best performing ASR engine.

9. The ASR system of claim 8 further comprising means for storing a ranking matrix, the ranking matrix comprising a plurality of different categories of speech signals and a plurality of different ASR engine rankings corresponding to the plurality of different categories.

10. The system of claim 9 wherein the different categories are selected from the group consisting of gender, noise level, and pitch.

11. The system of claim 9 wherein the different ASR engines comprise single ASR engines and multiple ASR engines combined together.

12. The system of 9 wherein the plurality of different ASR engine rankings are derived from statistical analysis.

13. The system of claim 12 wherein the statistical analysis comprises assessing accuracy of speech recognition of different ASR engines with different speech signals.

14. A system, comprising:

a computer system having a central processing unit coupled to a memory and extraction algorithm; and

a plurality of different automatic speech recognition (ASR) engines coupled to the computer system, wherein the computer system is adapted to analyze a speech utterance and select one of the ASR engines that will most accurately recognize the speech utterance.

15. The system of claim 14 wherein the extraction algorithm extracts data from the speech utterance to classify the speech utterance into a category selected from the group consisting of male and female.

16. The system of claim 14 wherein the computer system selects the ASR engine that has the least word error rate for the speech utterance.

17. The system of claim 14 further comprising at least three different ASR engines and at least three different combination schemas of ASR engines to represent a total of at least six different ASR engines.

18. The system of claim 14 further comprising a telephone network comprising at least one switching service point coupled to the computer system.

19. The system of claim 18 further comprising at least one communication device in communication with the switching service point to provide the speech utterance.

20. The system of claim 14 wherein the memory comprises a ranking table with a plurality of different categories of speech signals and a plurality of different ASR engine rankings corresponding to the plurality of different categories.